

up, whereas one done during the afebrile period intervening was negative. In 1918 his Wassermann reaction was positive when he was afebrile.

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THE COLLOIDAL GOLD CURVE IN EPIDEMIC ENCEPHALITIS: A PRELIMINARY NOTE.*

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THE occurrence of abnormal changes in the reaction of colloidal gold solution to the spinal fluid in epidemic encephalitis has not,

* This paper is based upon cases which have been at Bellevue Hospital, New York, and has been written at the suggestion of Dr. Foster Kennedy, physician in charge of the neurological department. We wish to express our thanks to Drs. Eugene F. DuBois, Robert J. Carlisle, Linnaeus La Petra, Charles E. Nammack and Van Horne Norris for permission to use reports from their services. We are indebted to Dr. Douglas Symmers for the use of the records of the pathologic laboratory.

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to our knowledge, been recorded up to the present time. In the course of routine examination of cases of this kind in Bellevue Hospital we have noticed the frequency with which variations have occurred. These variations from the normal suggested syphilis, although there were no other serological (Wassermann) or clinical evidences of this disease. On the other hand there were definite signs of encephalitis of the epidemic type. The spinal fluids upon which these tests were made were sent to the pathologic laboratory, in most cases, shortly after admission. The time of admission varied considerably as regards the week of the disease.

Case No.	Observation.	Weeks.	Cells.	Colloidal gold reaction.
1	1st	I	6	—
2	1st	I	14	1112100000
3	1st	I	40	—
4	1st	II	22	—
5	1st	II	0	—
6	1st	II	23	—
	2d	III	?	—
	3d	V	?	0012210000
7	1st	II	10	0000110000
	2d	V	2	0001121100
	3d	XI	2	4221211000
8	1st	II	0	—
9	1st	II	4	—
10	1st	III	4	—
11	1st	III	43	—
12	1st	III	12	—
13	1st	III	95	0001210000
14	1st	III	43	—
15	1st	III	65	—
16	1st	III	30	—
17	1st	III	134	0012231000
	2d	V	3	—
18	1st	III	20	1122100000
19	1st	IV	9	1222100000
20	1st	IV	?	—
21	1st	IV	10	0000110000
22	1st	V	11	—
23	1st	V	40	0000121000
24	1st	V	5	—
25	1st	V	?	—
	2d	XI	?	—
26	1st	VI	1	—
27	1st	VII	?	5432211000
28	1st	VII	30	0001232100
	2d	XIII	2	5544332100
29	1st	VII	?	—
30	1st	VIII	13	—
31	1st	VIII	19	4432110000
	2d	XII	2	0112210000
32	1st	VIII	8	0122110000
	2d	XVI	4	0022110000
33	1st	XI	14	0000110000
34	1st	XI	?	—
	2d	XII	0	—

NOTE.—Dashes indicate zeros.

The accompanying table indicates the number of observations made, the week of the disease and the number of cells found and the type of colloidal gold reaction. In a few cases more than one observation is recorded. The cases included are not all those admitted to Bellevue Hospital but only those in which colloidal gold tests were done.

In conclusion, we have been unable to observe any relation between the colloidal gold curves noted and the severity, duration or clinical picture of the disease. However, it does appear that in a large percentage (41 per cent.) of cases of epidemic encephalitis chemical changes, whether parenchymatous or meningeal, are present in the central nervous system which produce substances in the spinal fluid able to bring about an abnormal colloidal gold reaction.

It has been shown that in other conditions involving changes in the central nervous system alterations in the reaction of colloidal gold to the spinal fluid are analogous to those just described as occurring frequently in epidemic encephalitis. *Abnormal colloidal gold reactions are evidence of pathologic changes and not of specific etiology.* The diagnosis of etiology by means of the colloidal gold reaction cannot be made without confirming clinical evidence based upon the progress and symptomatology of each case.

CARCINOMA OF THE SUPRA-AMPULLARY PORTION OF THE DUODENUM.

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CARCINOMA of the duodenum may be classified according to position. Clinically the most valuable classifications depend on the relation of the tumor to the ampulla of Vater. Pic¹ speaks of carcinoma of the duodenum as being parapyloric, periampullary or prejejunal. Fenwick² and Bland-Sutton³ classify the growth as supra-ampullary, ampullary or infra-ampullary. The latter grouping is probably the more valuable.

Carcinoma of the duodenum is a rare condition. According to autopsy figures cited by Max Müller,⁴ Perry and Shaw,⁵ Ruepp,⁶ Nothnagel,⁷ Tieman⁸ and Fritz Müller⁹ the average incidence is about 0.035 per cent. Of 4177 cases of carcinoma of the intestine